

Claims:

1. Handheld apparatus for propelling particulate matter, the apparatus comprising:
 a mixing chamber having a sidewall, a gas receiving port at a first end of the chamber and a discharge end wall at an opposite end of the chamber;
 a means for a gas delivery conduit³², whereby the gas delivery conduit would be disposed within the chamber and extend into the mixing chamber;
 a discharge port³⁴ in the discharge end wall;
 a discharge conduit³² disposed within the chamber and extending in fluid communication from the discharge port towards the gas receiving port;
 a means for an elongated particle-directing tube³⁶ disposed external to the chamber, a proximal end of the particle-directing tube in fluid communication with the discharge port;
 wherein the mixing chamber is of a designed size and shape well suited of being held within a user's hand.
2. The apparatus of Claim 1, wherein the size and shape of the mixing chamber resembles that of a syringe.
3. The apparatus of Claim 1, wherein the apparatus further comprises an elongated particle directing tube, the elongated particle-directing tube being in fluid communication with the discharge conduit.
4. The apparatus of Claim 3, wherein the elongated particle directing tube is a continuation of the discharge conduit.
5. The apparatus of Claim 3, wherein the elongated particle directing tube is at least one of capable of being bent and pre-bent.
6. The apparatus of Claim 1, wherein the apparatus further comprises a color-coding to identify the particulate matter.

7. The apparatus of Claim 1, the apparatus further comprising at least one of a gas delivery port cap and a discharge end cap.

5 8. The apparatus of Claim 7, wherein the apparatus further comprising a color-coding to identify the particulate matter.

9. The apparatus of Claim 2, the apparatus further comprising an attachment area located proximate the gas receiving port to the apparatus, whereby the attachment area
10 provides a means to couple the apparatus to an air supply source.

10. Handheld apparatus for propelling particulate matter, the apparatus comprising:
a mixing chamber having a sidewall, a gas receiving port at a first end of the chamber and a discharge end wall at an opposite end of the chamber;
5 a gas delivery conduit, whereby the gas delivery conduit is disposed within the chamber and extends into the mixing chamber;
a discharge port in the discharge end wall;
a discharge conduit disposed within the chamber and extending in fluid communication from the discharge port towards the gas receiving port;
20 a means for an elongated particle-directing tube disposed external to the chamber, a proximal end of the particle-directing tube in fluid communication with the discharge port;
wherein the mixing chamber is of a designed size and shape well suited of being held within a user's hand.

25

11. The apparatus of Claim 10, whereby the gas delivery conduit is positioned off-center with respects to the gas delivery port.

12. The apparatus of Claim 10, wherein the size and shape of the mixing chamber
30 resembles that of a syringe.

13. The apparatus of Claim 10, wherein the apparatus further comprises an elongated particle directing tube, the elongated particle-directing tube being in fluid communication with the discharge conduit.

5

14. The apparatus of Claim 13, wherein the elongated particle directing tube is a continuation of the discharge conduit.

10

15. The apparatus of Claim 13, wherein the elongated particle directing tube is at least one of capable of being bent and pre-bent.

16. The apparatus of Claim 10, wherein the apparatus further comprises a color-coding to identify the particulate matter.

15

17. The apparatus of Claim 10, the apparatus further comprising at least one of a gas delivery port cap and a discharge end cap.

20

18. The apparatus of Claim 17, wherein the apparatus further comprising a color-coding to identify the particulate matter.

25

19. The apparatus of Claim 12, the apparatus further comprising an attachment area located proximate the gas receiving port to the apparatus, whereby the attachment area provides a means to couple the apparatus to an air supply source.

30

20. Handheld apparatus for propelling particulate matter, the apparatus comprising:
a mixing chamber having a sidewall, a gas receiving port at a first end of the
 chamber and a discharge end wall at an opposite end of the chamber;
 a gas delivery conduit, whereby the gas delivery conduit is disposed within the
 chamber and extends into the mixing chamber;
 a discharge port in the discharge end wall;

a discharge conduit disposed within the chamber and extending in fluid communication from the discharge port towards the gas receiving port;

a means for an elongated particle-directing tube disposed external to the chamber, a proximal end of the particle-directing tube in fluid communication with the discharge port;

a self sealing mechanism ⁽¹⁰⁰⁾ to provide airflow when exposed to gas stream and seal when not exposed to airflow, whereby the self sealing mechanism is located between the gas receiving port and the mixing chamber;

wherein the mixing chamber is of a designed size and shape well suited of being held within a user's hand.

21. The apparatus of Claim 20, wherein the self-sealing mechanism is of a molded flexible material.

22. The apparatus of Claim 21, wherein the self-sealing mechanism is of a hemispherical geometry.

23. The apparatus of Claim 22, the self-sealing mechanism further comprising at least one slit.

24. The apparatus of Claim 21, the self-sealing mechanism further comprising at least one slit.

25. The apparatus of Claim 20, wherein the size and shape of the mixing chamber resembles that of a syringe

26. The apparatus of Claim 20, wherein the apparatus further comprises an elongated particle directing tube, the elongated particle-directing tube being in fluid communication with the discharge conduit.

gas stream
= airflow
gas receiving
port
is part of
mixing
chamber

27. The apparatus of Claim 26, wherein the elongated particle directing tube is a continuation of the discharge conduit.

28. The apparatus of Claim 26, wherein the elongated particle directing tube is at least
5 one of capable of being bent and pre-bent.

29. Handheld apparatus for propelling particulate matter, the apparatus comprising:
a mixing chamber having a sidewall, a gas receiving port at a first end of the
chamber and a discharge end wall at an opposite end of the chamber;

10 a gas delivery conduit, whereby the gas delivery conduit is disposed within the
chamber and extends into the mixing chamber;

a discharge port in the discharge end wall;

a discharge conduit disposed within the chamber and extending in fluid
communication from the discharge port towards the gas receiving port;

15 a means for an elongated particle-directing tube disposed external to the chamber,
a proximal end of the particle-directing tube in fluid communication with the discharge
port;

particulate matter;

a means to temporarily containing particulate matter within the mixing chamber;

20 wherein the mixing chamber is of a designed size and shape well suited of being
held within a user's hand.

30. The apparatus of Claim 29, whereby the gas delivery conduit is positioned off-
center with respects to the gas delivery port.

31. The apparatus of Claim 29, wherein the size and shape of the mixing chamber
resembles that of a syringe.

32. The apparatus of Claim 29, wherein the apparatus further comprises an elongated particle directing tube, the elongated particle-directing tube being in fluid communication with the discharge conduit.

5 33. The apparatus of Claim 32, wherein the elongated particle directing tube is a continuation of the discharge conduit.

34. The apparatus of Claim 32, wherein the elongated particle directing tube is at least one of capable of being bent and pre-bent.

10

35. The apparatus of Claim 29, wherein the apparatus further comprises a color-coding to identify the particulate matter.

36. The apparatus of Claim 29, wherein the means for temporarily containing the particulate matter is of at least one of a gas delivery port cap and a discharge end cap.

37. The apparatus of Claim 36, wherein the apparatus further comprising a color-coding to identify the particulate matter.

38. The apparatus of Claim 31, the apparatus further comprising an attachment area located proximate the gas receiving port to the apparatus, whereby the attachment area provides a means to couple the apparatus to an air supply source.